PRACTICEOPOLIS
From an Imaginary City to a Graphic Novel

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ABSTRACT

This essay is about a graphic novel produced as the culmination of a creative practice research project. It dramatizes real-life exchanges from project management meetings held during the conduct a live architectural project in the UK, re-siting those exchanges to an imaginary city as high-stakes public debates. The graphic novel depicts these exchanges as value-conflicts in order to examine the ideologies at work among architects and other actors in the construction industry. The research represents a special creative space that challenges design research practices in order to create new strategies and methods for design as scholarship.

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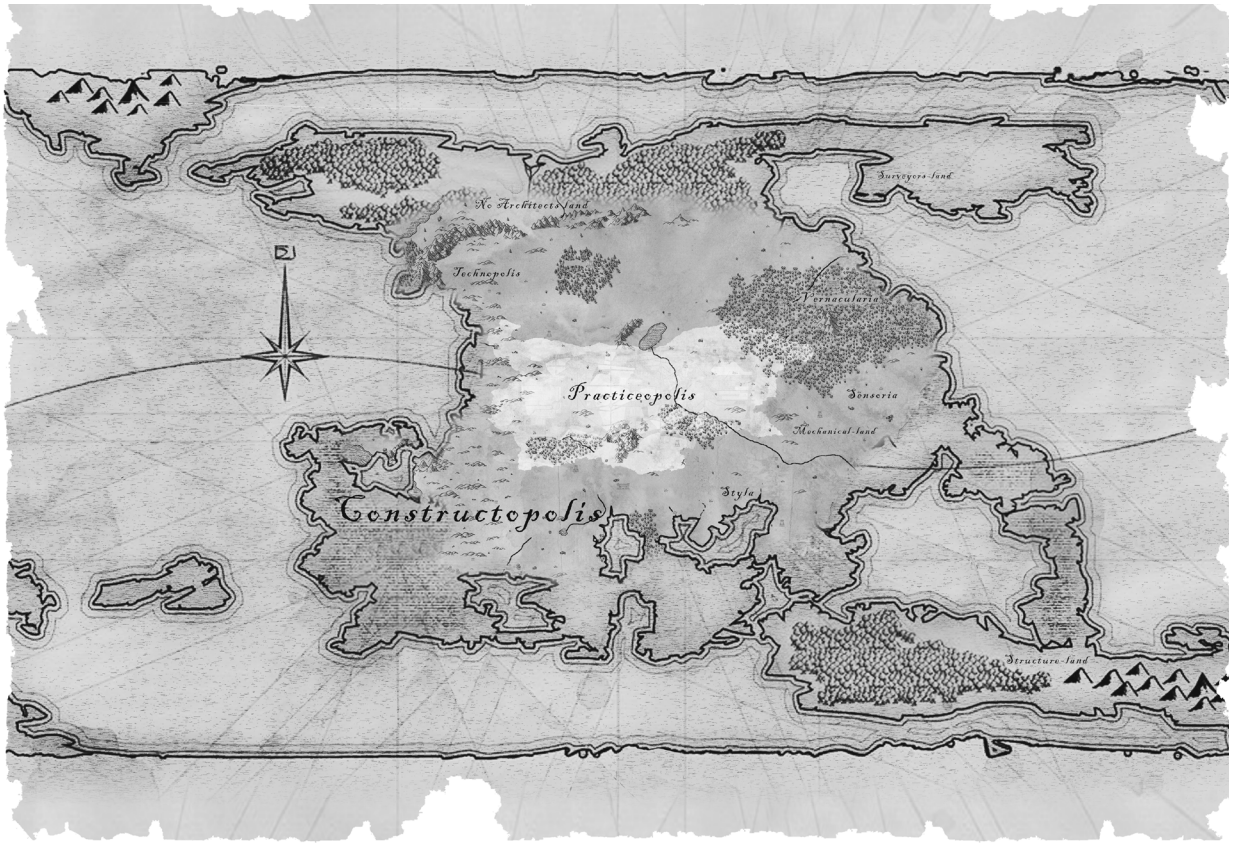


Fig. 1: Practiceopolis – the City-state within Constructopolis, the confederation of the building industry (the Authors)

The genre of the graphic novel is rarely tested as a research method. This essay is about a graphic novel produced as the culmination of a creative practice research project. It was made as a dramatization of real-life exchanges from project management meetings held during the conduct of a live architectural project in the UK, re-siting those exchanges to an imaginary city as high-stakes public debates. The graphic novel form allowed the exchanges to be depicted as value-conflicts in order to examine the ideologies at work among architects and other actors in the construction industry. The project emerged from a research-led architecture office, based in a university, where live projects are employed as springboards for design research, not treating projects directly as research but instead by taking thematic cuts through the practice work to draw-out significant research themes. This research project followed a series of stages, reflecting upon – and critiquing – the values of the contemporary architectural profession. Using the live project as a case study, it focused on the competition for economic and cultural capital between different cultures of practice operating within the architectural profession in the UK, in the light of the domination of technical-rational[1] values in the culture of the contemporary British building industry. The outcome of this research project was an architectural graphic novel set in an imaginary metropolis representing the contemporary architectural profession, named Practiceopolis, centered on the fictive island of the Confederation of the Building Industry (Figure 1).

The first stages of the research involved diagramming prevailing values in the architectural profession and the construction industry more broadly, identifying the most prominent cultures of practice. This

exercise drew from the philosopher Andrew Feenberg's classification of varying stances towards technology and technical knowledge, interpreting them as ideological positions that reflect the values of the different cultures of practice defining the contemporary architectural profession.[2] The initial diagram becomes a map which becomes the plan for the speculative city. The city became envisaged through a sequence of iterative narratives where each narration set the foundation for the next, posing specific questions about the values operating within the architectural profession.

THE GRAPHIC NOVEL

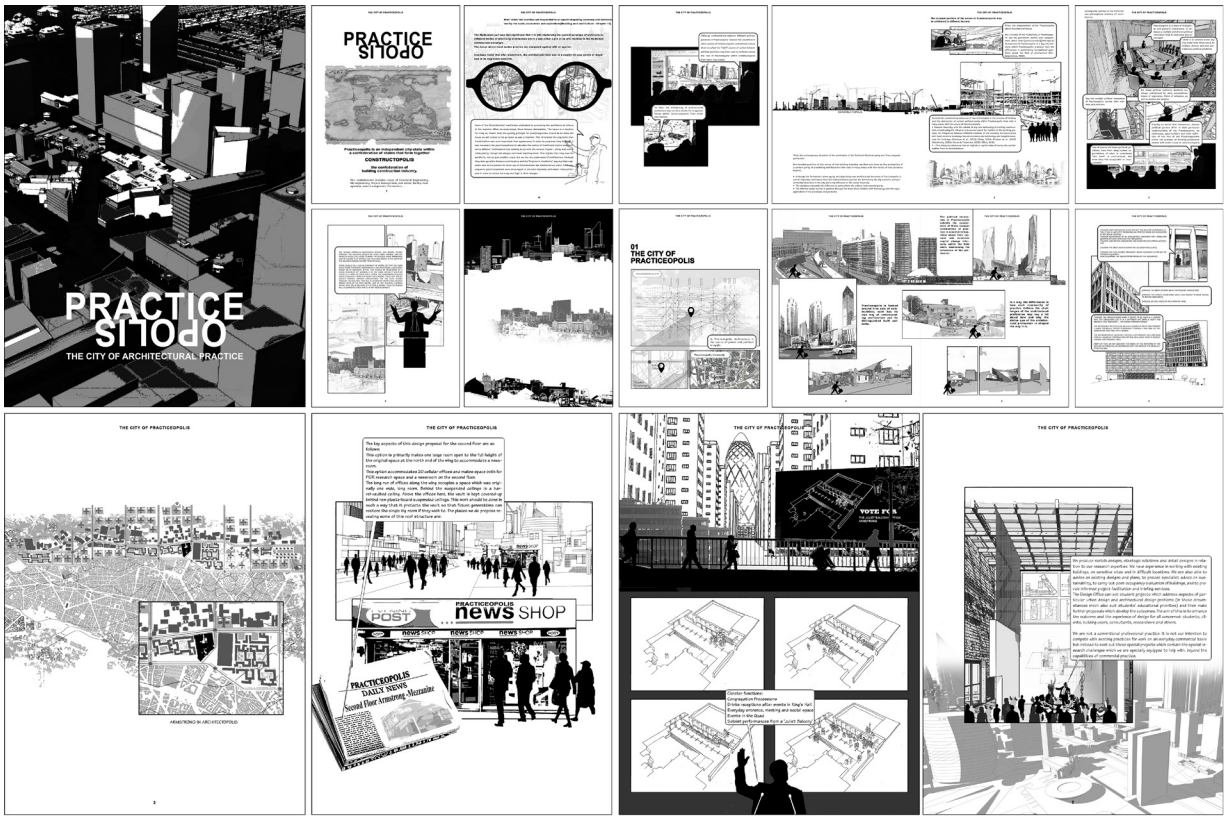


Fig. 2 (below), Excerpts from the graphic novel "Stories from Practiceopolis" (the Authors)

The most substantial – and somewhat unexpected – outcome of the research is the production of an architecturally-themed graphic novel, situated in the imaginary realm of Practiceopolis. It followed our office's appointment as 'concept architects' for the renovation of a Grade II listed building in the UK. The project allowed us to observe the dialogue between different actors who represented different modes of practice and embodied different values, disclosed through their explicit and implicit commentaries about the processes of building production. The project thus offered an opportunity to dramatize these encounters as value-conflicts in the building industry, relocated to Practiceopolis and contested in the spaces and cultures of that imaginary city (Figure 2).

The graphic novel drew from the value-conflicts that occurred during the project's Progress and Value Engineering Meetings. These meetings highlighted the presence of different cultures of practice represented by: our research-led office as concept architects; a

facility management service, a technical-rational organization acting as the client's architectural representative; engineering consultants; contractors; quantity surveyors; and a multinational project manager. These participants' values played out around attitudes to efficient, profitable and timely delivery – usually seen as preferable by the actors whose values might broadly be characterized as technical-rational. The discussions made us acutely conscious not just of the values of our research-led practice but of certain priorities of architectural discourse, and the legacies of our architectural training. In the dramatized version of these meetings, these actors – and the various cultures of practice they represent – are working to articulate competing, high-stakes visions for the future of Practiceopolis. Combining ethnography and participant observation with 'by design' and cartooning methodologies, these stories indicate the range of preconceptions expressed by the different actors as value-conflicts not confined specifically to one project but the future of the broader ethos of the contemporary building industry (Figure 3).

The graphic novel is inspired by Jimenez Lai's architectural graphic novel *Citizen of No Place* (2012).[3] The novel also takes inspiration from the Danish Architect Bjarke Ingels's *Yes is More: An Archicomic on Architectural Evolution* (2010). It adopts some of the techniques of storytelling he used to document and demonstrate the works of BIG, their methods and processes by means of cartoon.[4] The novel builds on the work of Dana Cuff, Robert Gutman and Paolo Tombesi on the nature of the architectural profession and its challenges in the building industry and within the global capitalist market.[5] In addition, it touches on the work of Jeremy Till concerning the need for architects to self-critique their claims of autonomy and to understand the nature of our field.[6]

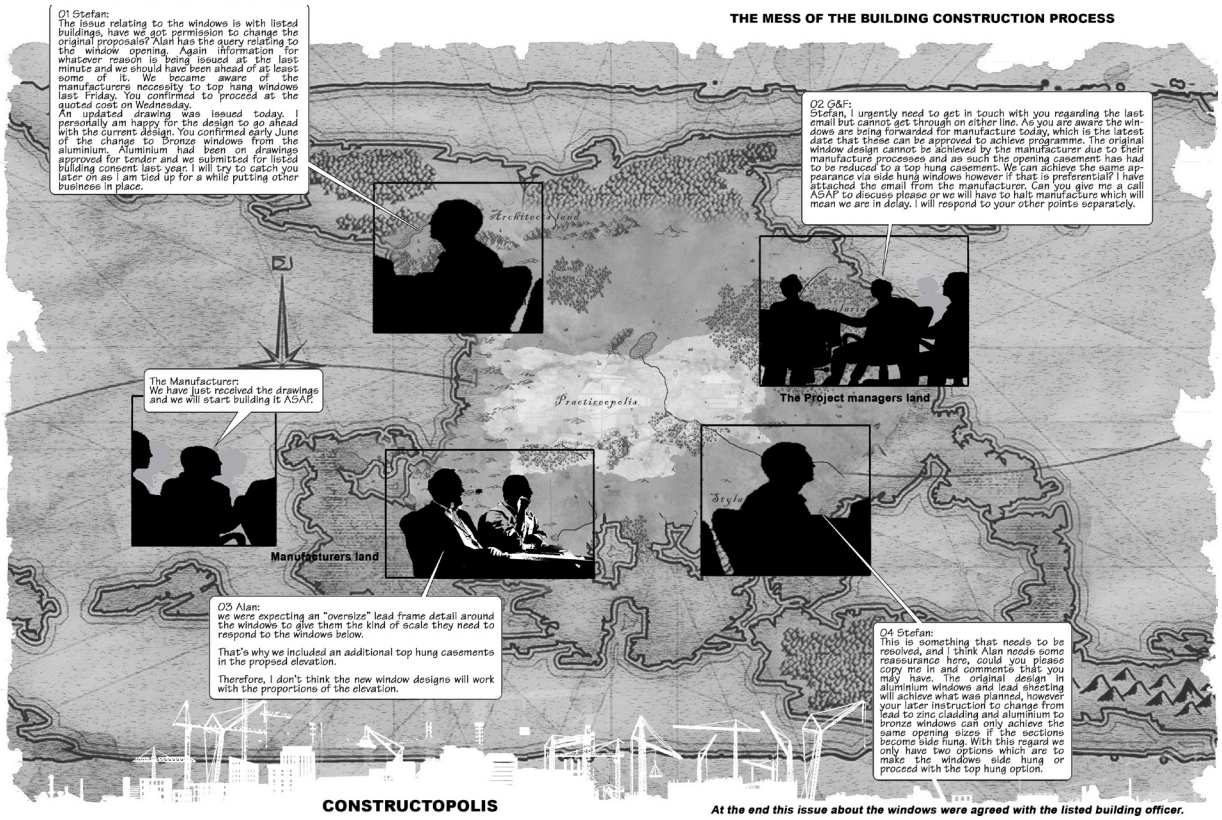


Fig. 3 (below), Excerpts from the graphic novel "Stories from Practiceopolis" (the Authors). The novel argues that these value-conflicts are not confined specifically to the project involved but may also reflect the broader ethos of the contemporary building industry.

The novel consists of five sections. These sections feature descriptions of the ideological positions of the characters involved in the project, the history of the building located at the center of the debates, the proposed design intervention, the Progress Meetings recast as political debates, and ends with a deliberation on value conflicts in the profession set in Practiceopolis Parliament. The Progress Meetings section features different stories that revolve around design and technical issues which occurred during the project's development; each portraying the coexistence of different values at work in its execution.

One story, for example, 'the Warranty', depicted an instance where our office suggested using rolled-lead – a material already found in the existing fabric of building – to clad an existing, but not-original, addition. This was met with resistance from the project's technical-rational consultants. Both the University's facility management service and the main building contractor preferred a Sarnafil single ply membrane based on its ease of application, less health and safety issues over the handling of heavy materials and the system's 25 year paper warranty. They believed this system would offer a similar appearance to lead while being simpler to construct. We disagreed with these assumptions, preferring lead in this historic context as a more visually rich material with long cultural associations, a history of fine craftsmanship, durability and a patina that ages nicely. Lead, we argued, would be a complementary material in this context, detailed in a contemporary way. While it came with no paper warranty, long experience has shown lead to be a highly durable material requiring minimal maintenance, and its life-cycle cost appears reasonable when considered against the alternative single ply membrane (Figures 4 -6).

Fig. 4-6 Excerpts from the graphic novel, the story of 'the Warranty' (the Authors)

Atkinson is an attractive four storey brick structure with sandstone dressing and Jacobean details with Arts-and Crafts touches in its later phases. The picturesque features of the building and the arts and crafts quality keep the building standing as a significant edifice within the campus. The building has a lively roofscape that give animation to its different sides and provides orientation in the area.

The Lean-to cladding

From: EFM

Good Morning Alan,

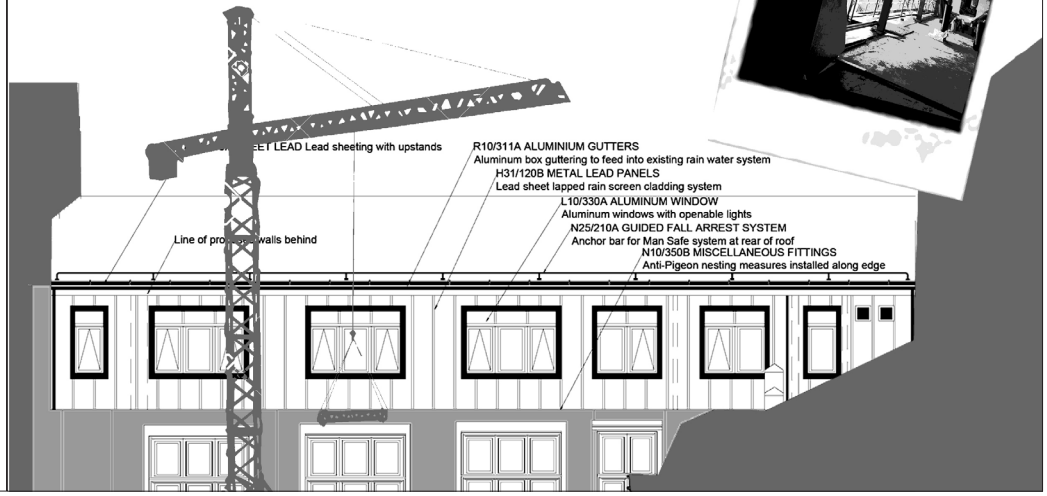
I realise that you are not in the office, but hope that I am not disturbing your break too much, as I know that you will probably be checking your mail.

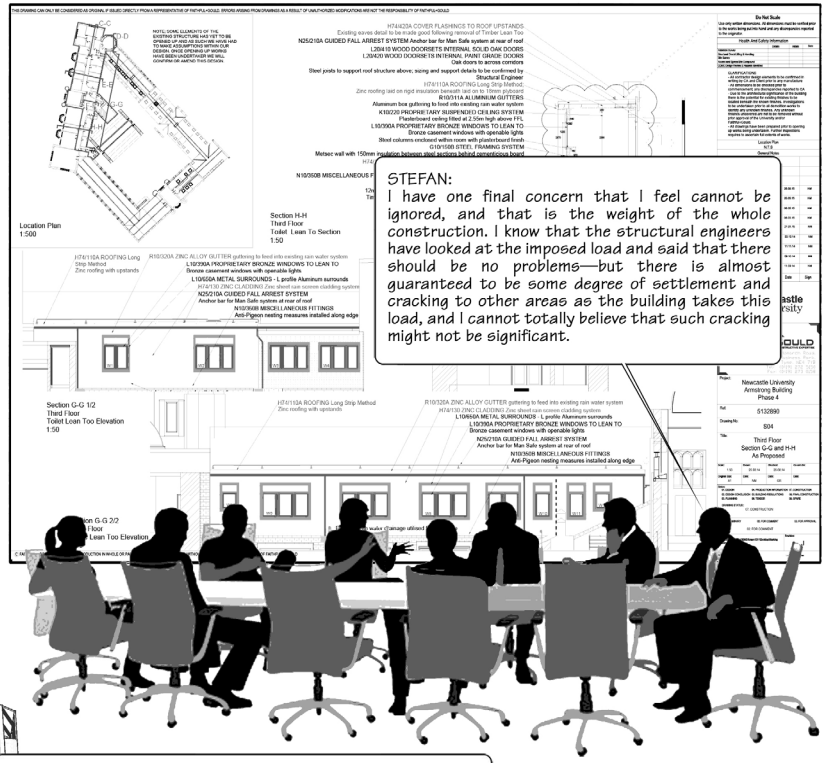
There are a few things that have come up which I need to make you aware of and cannot wait until you get back.

The contractor has been looking at the proposals for the lean to designs. G&F designs were somewhat contradicting in their specification, and now that the specification has been made clear the contractor has identified a fairly major problem. Short of hiring a tower crane, they have not been able to identify a suitable way of manhandling the lead onto the roof without putting operatives at risk. The weight of the rolled lead is excessive and extremely difficult to handle. As such they have made a request that the outer face of the building be manufactured in Sarna, complete with the lead roll details mimicking real lead.

There are several reasons for this possible switch. Firstly as explained is the safety concerns about the physical manhandling of such heavy objects, Secondly this will reduce the time it takes to make the building reasonable watertight, a couple of days against a couple of weeks for the lead. Thirdly the benefit to the programme of the faster installation, and lastly the fact that lead will come with a 12 month defect period whereas the Sarnafil comes with a 25 year guarantee. I know that in defence, the lead will be as good as the people who fit it, and whilst it should be good for 50+ years, the workmen available today do not have the levels of skill of those who worked lead in the past, and all resulting maintenance will fall back on the shoulders of EFM.

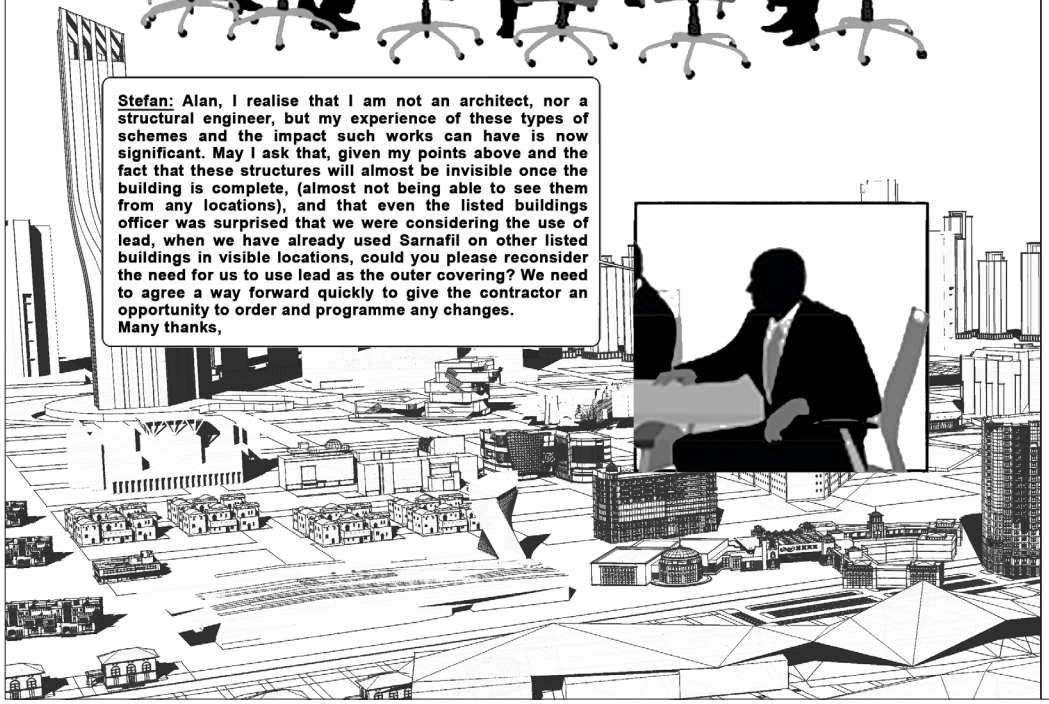
Stefan,



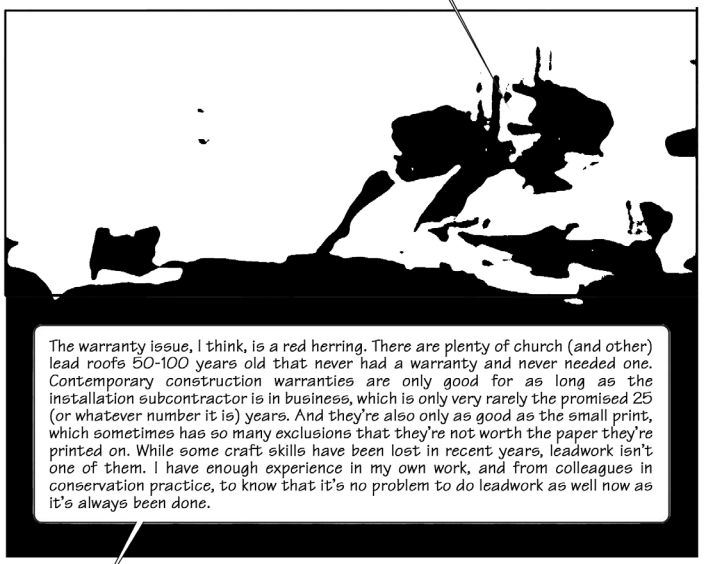


STEFAN:
I have one final concern that I feel cannot be ignored, and that is the weight of the whole construction. I know that the structural engineers have looked at the imposed load and said that there should be no problems—but there is almost guaranteed to be some degree of settlement and cracking to other areas as the building takes this load, and I cannot totally believe that such cracking might not be significant.

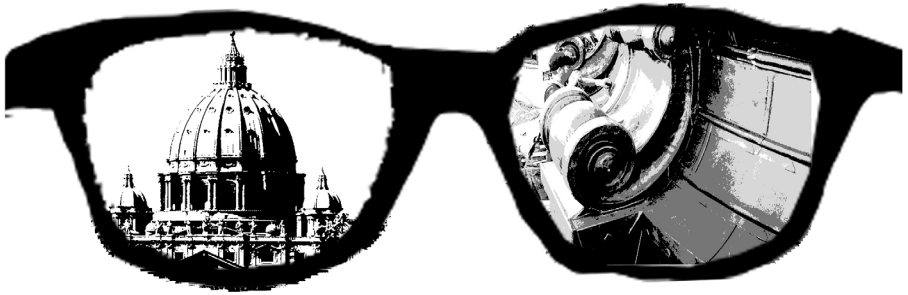
Stefan: **Alan, I realise that I am not an architect, nor a structural engineer, but my experience of these types of schemes and the impact such works can have is now significant. May I ask that, given my points above and the fact that these structures will almost be invisible once the building is complete, (almost not being able to see them from any locations), and that even the listed buildings officer was surprised that we were considering the use of lead, when we have already used Sarnafil on other listed buildings in visible locations, could you please reconsider the need for us to use lead as the outer covering? We need to agree a way forward quickly to give the contractor an opportunity to order and programme any changes.**
Many thanks,



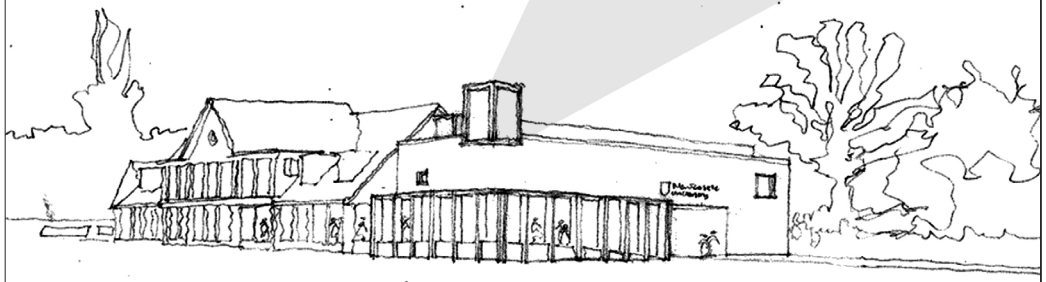
Alan: I have a strong objection to the use of Sarnafil here. The two key reasons for choosing lead were: this is such a difficult place to access for maintenance, we should go for the longest lasting material, which is lead; and that Sarnafil just isn't visually good enough (it always ends up with creases and bubbles in it; and joints are never visually sharp enough).



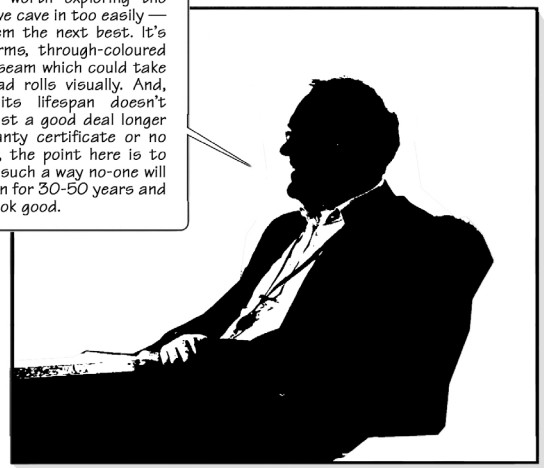
The warranty issue, I think, is a red herring. There are plenty of church (and other) lead roofs 50-100 years old that never had a warranty and never needed one. Contemporary construction warranties are only good for as long as the installation subcontractor is in business, which is only very rarely the promised 25 (or whatever number it is) years. And they're also only as good as the small print, which sometimes has so many exclusions that they're not worth the paper they're printed on. While some craft skills have been lost in recent years, leadwork isn't one of them. I have enough experience in my own work, and from colleagues in conservation practice, to know that it's no problem to do leadwork as well now as it's always been done.



If the structural engineer says there's no problem with weight then we should believe them. That's what we pay them for and that's what their Professional Indemnity Insurances for.
So the main issue here is that of weight and manual handling. I don't see why the contractor didn't pick this up when they tendered. The first port of call, it seems to me, is to push them on whether they really can't do it or whether they just don't want to do it or, more likely, haven't priced for it properly. If that doesn't work, then the second course of action should be to check whether it's possible to adjust the details to mitigate the handling problems. If we doubled the number of horizontal joints in the leadwork, for example, then each vertical sheet would be only half the length and half the weight. And since those joints are a simple fold, rather than a roll, the extra time involved should be manageable. Sarnafil is simply not good enough for a building of this quality. I've never seen it done really well, without blisters and bodged joints. And that's fine for certain circumstances but not here, especially when the 'lean-to's can be seen easily from the new quad.

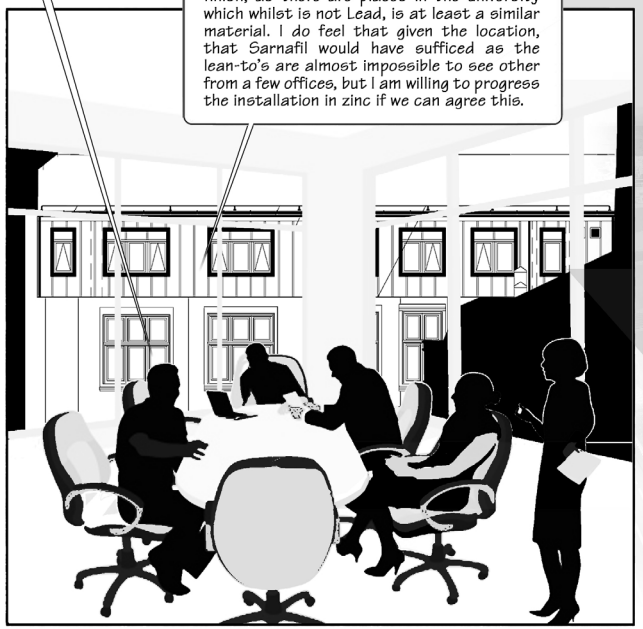


Yasser mentioned that zinc might be an option too. If we really can't have the lead — and I think it's worth exploring the options first before we cave in too easily — then that would seem the next best. It's lighter in weight terms, through-coloured and has a standing seam which could take the place of the lead rolls visually. And, importantly, while its lifespan doesn't match lead, it will last a good deal longer than Sarnafil. Warranty certificate or no warranty certificate, the point here is to clad the lean-to's in such a way no-one will have to scaffold again for 30-50 years and also to make them look good.



Stefan: I have discussed this issue on several levels with H&S, other contractors etc, and all agree that it would be best practice to avoid having to manhandle heavy items like rolls of lead onto a roof area. (I realise this has been done in the past where H&S rules were different, or might be in the future where mechanical lifting via cranes are options), but this in today's health and safety rules is difficult, if not impossible.

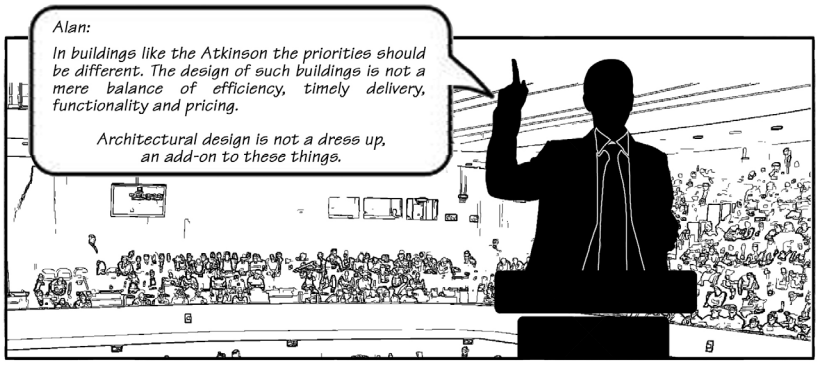
We have discussed the use of a rhinezinc type finish, as there are places in the university which whilst is not Lead, is at least a similar material. I do feel that given the location, that Sarnafil would have sufficed as the lean-to's are almost impossible to see other from a few offices, but I am willing to progress the installation in zinc if we can agree this.



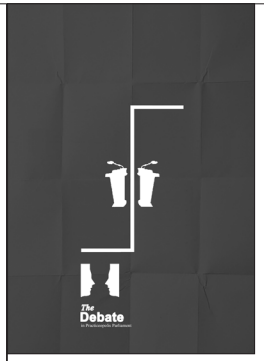
While it may seem almost trivial in the everyday world outside the novel, this issue in the project's design development nevertheless illustrated a difference of values and priorities between our office, as architects, and other actors in the industry. It was clear that the priority of the technical-rational actors were confined to ease of maintenance and the tick-boxes of health and safety regulation, whereas our values as architects were guided more by architectural ideas about new work expressing the values of its time in relation to historic fabric, the appropriateness of materials and detailing, long term value, and the celebration of craft. This story, among various others in the novel, invokes what Donald Schön would call 'reflective practice', involving the analysis of experience, paying critical attention to practical values and theories that inform everyday actions.[7] They allow the examination of practice, reflectively and reflexively, in order to pursue wider lessons from them for the self-definition of the architectural profession.

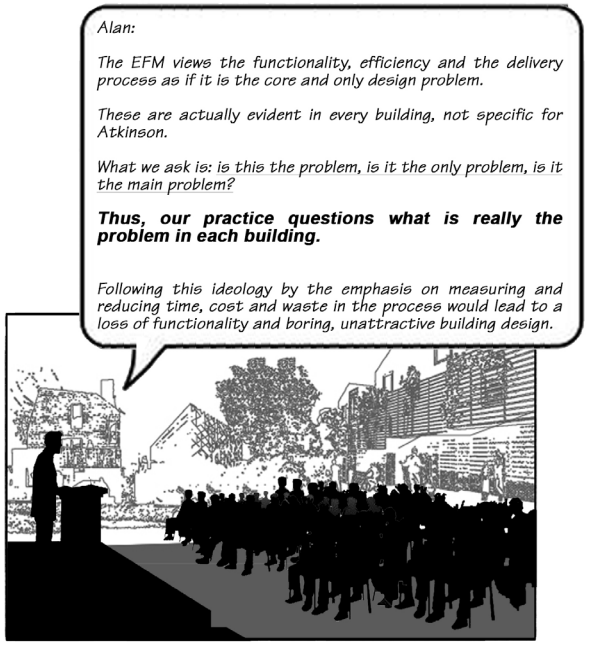
The concluding part of the novel takes the various value conflicts happened in the project to Practiceopolis Parliament as a political debate around the future of Practiceopolis within the Confederation of the Building Industry. It accentuates and polarizes the debates to draw out the underlying themes they represent. In the tradition of dystopian worlds common in a certain strand of graphic novels, it ends pessimistically with a near future speculation, extrapolating present contemporary conditions to illustrate the end of the architectural profession, or its transformation into to a new profession, as a subsection of one of the technical-rational members of the industry (Figure 7- 12).

Fig. 7-11 Excerpts from the graphic novel, the story of 'the Warranty' (the Authors)

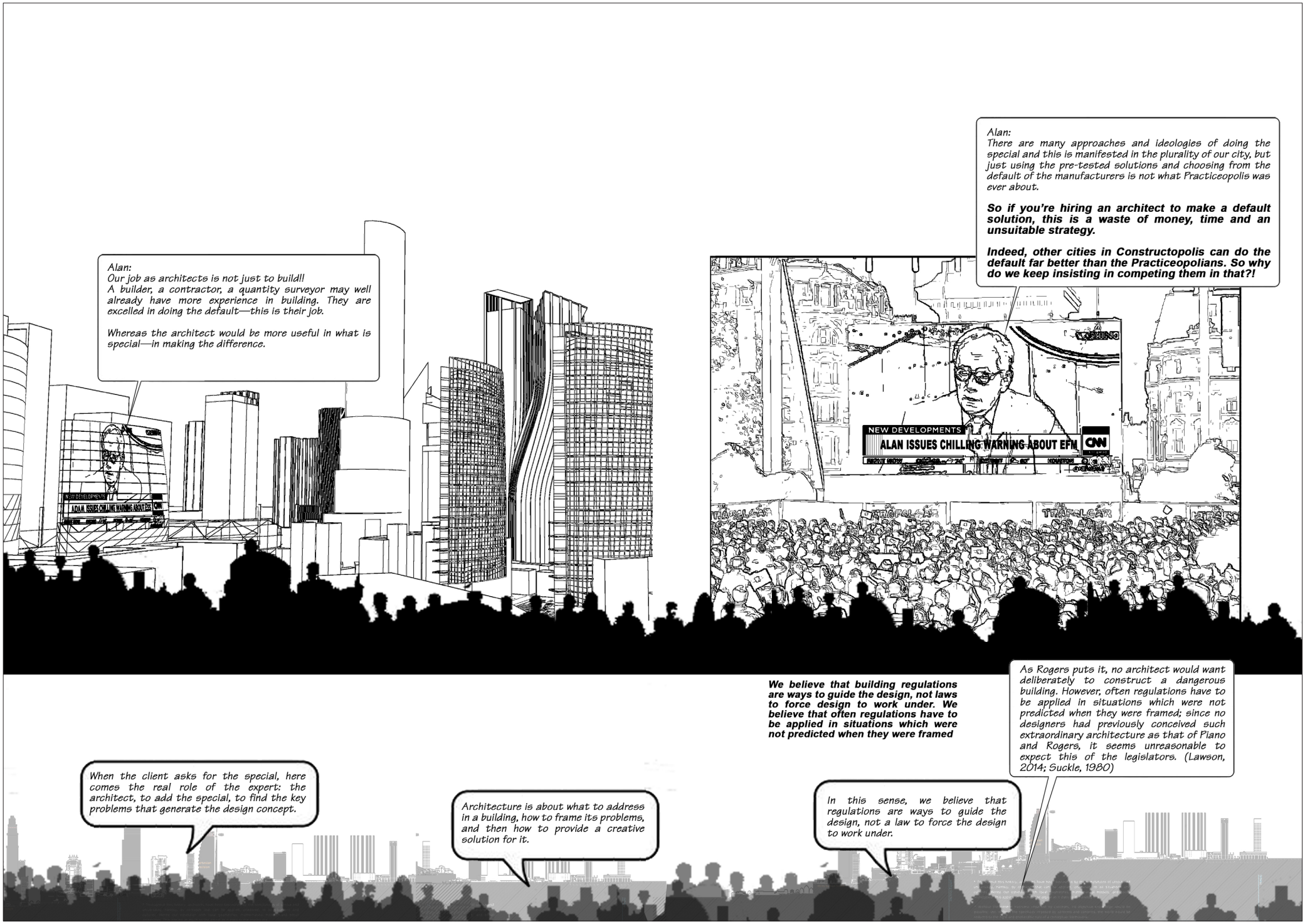

Alan:
In buildings like the Atkinson the priorities should be different. The design of such buildings is not a mere balance of efficiency, timely delivery, functionality and pricing.
Architectural design is not a dress up, an add-on to these things.


We believe that we cannot deal with different buildings with the same recipe of a balance between efficiency and design quality.
What we believe in is that we can have many efficient functional buildings, but we do not have much of buildings with design quality.

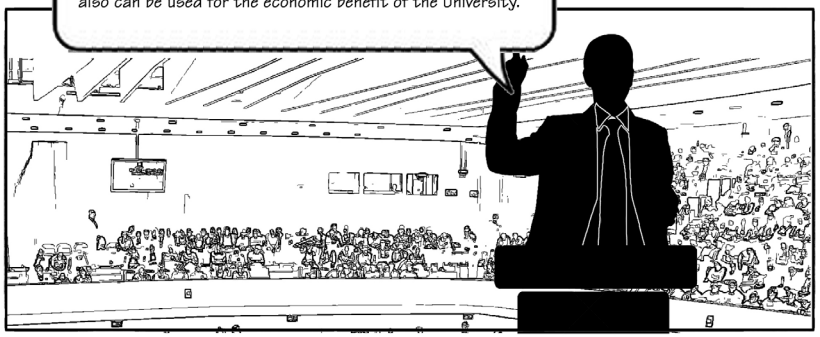

The
Debate


Alan:
The EFM views the functionality, efficiency and the delivery process as if it is the core and only design problem.
These are actually evident in every building, not specific for Atkinson.
What we ask is: is this the problem, is it the only problem, is it the main problem?
Thus, our practice questions what is really the problem in each building.
Following this ideology by the emphasis on measuring and reducing time, cost and waste in the process would lead to a loss of functionality and boring, unattractive building design.

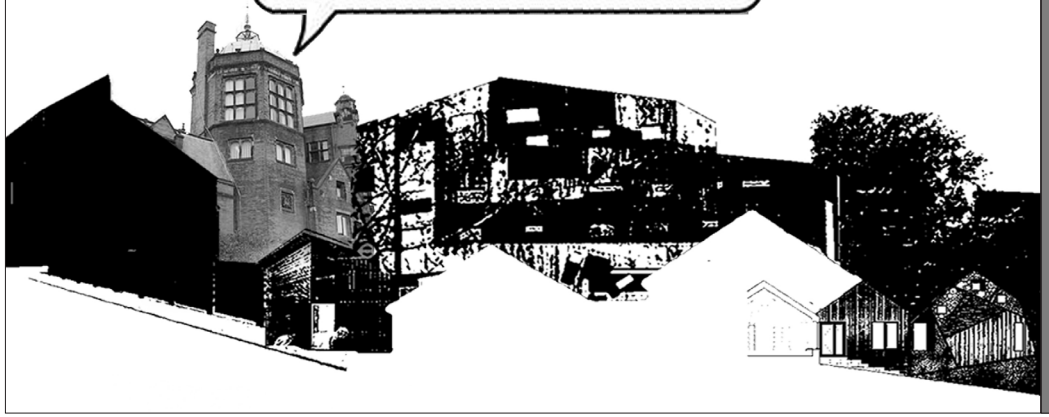

Alan: Actually, this is what I take against the EFM proposals, it gives generic solutions that may work well, but only add to the functionality and efficiency of the building, but it actually does not question what makes this building special.
Alan: We believe that architecture is not about giving the generic, the default; but it is about dealing with the special and making the normal special.


Alan:
Our job as architects is not just to build!!
A builder, a contractor, a quantity surveyor may well already have more experience in building. They are excelled in doing the default—this is their job.
Whereas the architect would be more useful in what is special—in making the difference.
NEW DEVELOPMENTS
ALAN ISSUES CHILLING WARNING ABOUT EFM
CNN
Alan:
There are many approaches and ideologies of doing the special and this is manifested in the plurality of our city, but just using the pre-tested solutions and choosing from the default of the manufacturers is not what Practiceopolis was ever about.
So if you're hiring an architect to make a default solution, this is a waste of money, time and an unsuitable strategy.
Indeed, other cities in Constructopolis can do the default far better than the Practiceopolians. So why do we keep insisting in competing them in that?!
We believe that building regulations are ways to guide the design, not laws to force design to work under. We believe that often regulations have to be applied in situations which were not predicted when they were framed
As Rogers puts it, no architect would want deliberately to construct a dangerous building. However, often regulations have to be applied in situations which were not predicted when they were framed; since no designers had previously conceived such extraordinary architecture as that of Piano and Rogers, it seems unreasonable to expect this of the legislators. (Lawson, 2014; Suckle, 1980)
When the client asks for the special, here comes the real role of the expert: the architect, to add the special, to find the key problems that generate the design concept.
Architecture is about what to address in a building, how to frame its problems, and then how to provide a creative solution for it.
In this sense, we believe that regulations are ways to guide the design, not a law to force the design to work under.

What we tried to do in our proposal was to add to the richness of these accumulative cultures of practice that created this very important building through making a special design instead of just focusing on some functional and utilitarian needs. Yes this has its pricing effect on the project but also has its cultural and symbolic values that also can be used for the economic benefit of the University.



These buildings say as much about the values of our time and the architectural culture that dominates Practiceopolis, as what the Atkinson building said about his. And I believe, the way the EFM pushed us in on this project echoes the values of our current time—the time of junk-default-architecture.



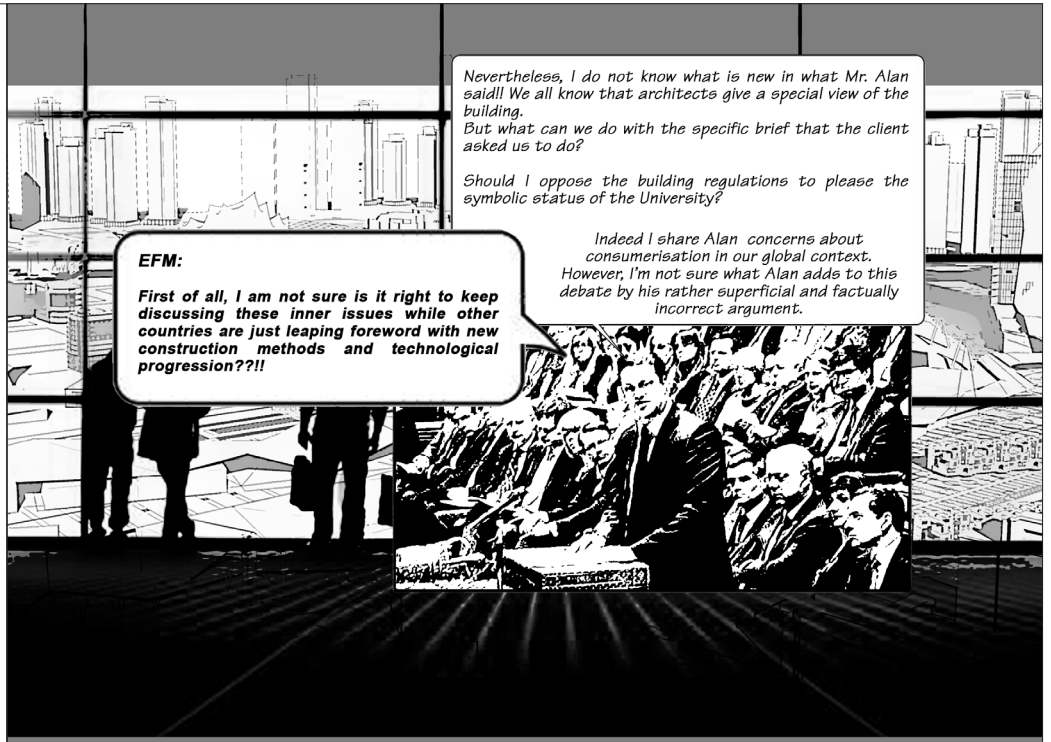
Nevertheless, I do not know what is new in what Mr. Alan said! We all know that architects give a special view of the building.
But what can we do with the specific brief that the client asked us to do?

Should I oppose the building regulations to please the symbolic status of the University?

Indeed I share Alan concerns about consumerisation in our global context. However, I'm not sure what Alan adds to this debate by his rather superficial and factually incorrect argument.

EFM:

First of all, I am not sure is it right to keep discussing these inner issues while other countries are just leaping foreword with new construction methods and technological progression??!!

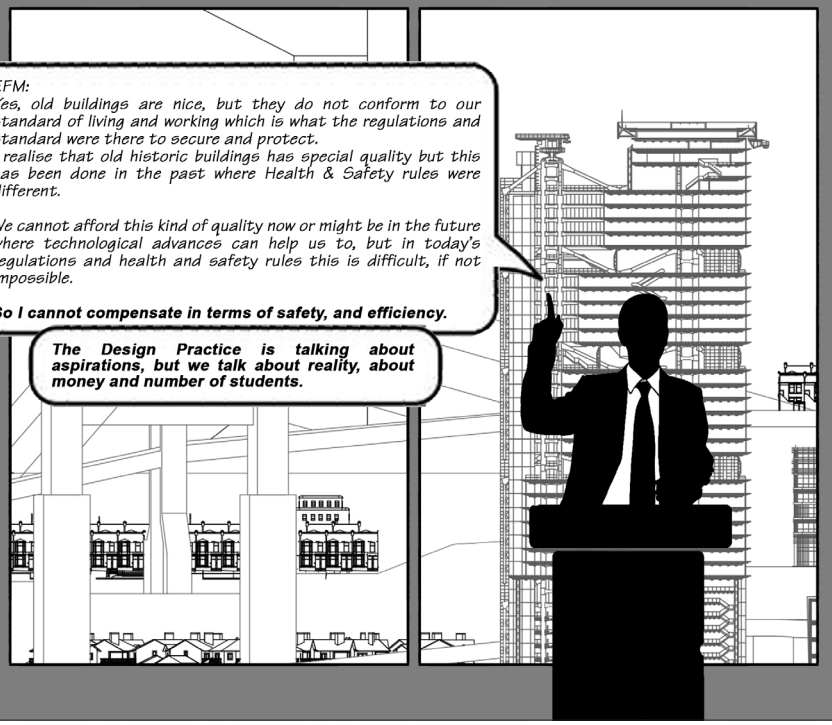


EFM:
Yes, old buildings are nice, but they do not conform to our standard of living and working which is what the regulations and standard were there to secure and protect.
I realise that old historic buildings has special quality but this has been done in the past where Health & Safety rules were different.

We cannot afford this kind of quality now or might be in the future where technological advances can help us to, but in today's regulations and health and safety rules this is difficult, if not impossible.

So I cannot compensate in terms of safety, and efficiency.

The Design Practice is talking about aspirations, but we talk about reality, about money and number of students.



In these meetings, the one who wins the argument was not commonly the architect. There were often an implicit coalition between The Technical-Rationals practice, the quantity surveyors Contractor, and project managers. All have a technical-rational ideology that often sees the architect as odd — arrogant — and not cooperative.

Also. the way that the EFM, the engineers, and the CDM coordinator take their decisions is often dependent only on specs, technical arguments and quality measures.
To reach a decision in any arising matter, they tend to base their argument on logical functional and economic criteria.

This criteria often lack a clear imagination of the visual outcome of these decisions.

What we were doing as architects in these meeting was to show them the influence of their technical decisions on the spatial and visual qualities of the space. This turns into a fight when the technical argument contradicts the architectural concept design.

Nevertheless, these meetings were called "Design-team" meetings!
Here I recall Bryan Lawson's definition of different understands of what is believed to be design in different fields.

What they're doing is not exactly design as we architects understand it, or you can say: it is a very preliminary phase of design.

I found that the other members of what they call "the design team" have a total different way of thinking from the architectural one — I am not saying that the architectural one is better or worse. I am just want to assert the clear difference between their ways of thinking.

For me, what they do is very important and influential, but not often seen, that's why they may not easily get the spatial and visual outcome of their decisions.

Those members of the industry often define the building's problem according to their tool box of pretested solutions. They have full confidence in standards and regulations.

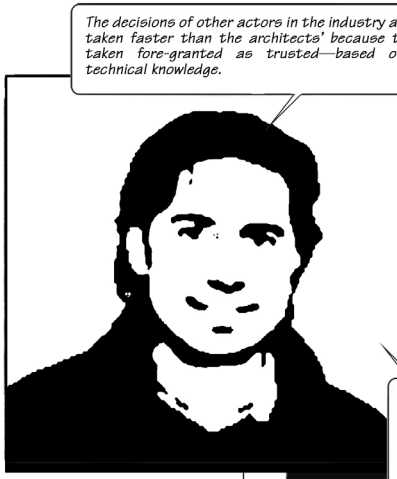
On the other hand, architects tend to see the building's problem through different scenarios related to different concepts of inhabitation.

Their design concepts are spatial and visual reactions to these scenarios ...

In contradiction to other members of the industry, the architectural knowledge is not determined like theirs. Hence they always need to put their arguments through a narrative that mixes the technical facts with what seems to others as subjective rhetoric.

Most of what is directly seen in the building is attributed to an architectural decision — yes many of these decisions are informed by the engineers' knowledge, but at the end the visual and spatial outcome is the architects' responsibility.
Architects hence question standards and regulations
Architects try to salvage their visual and spatial concept from the specification-based decisions of the engineers.

The decisions of other actors in the industry are often taken faster than the architects' because they are taken fore-granted as trusted—based on their technical knowledge.



However while the architectural decisions were taken after a long process, challenged easily in the progress meetings. This is not because of a powerful technical argument, but by the common agreement between the other actors about efficiency and technical issues.

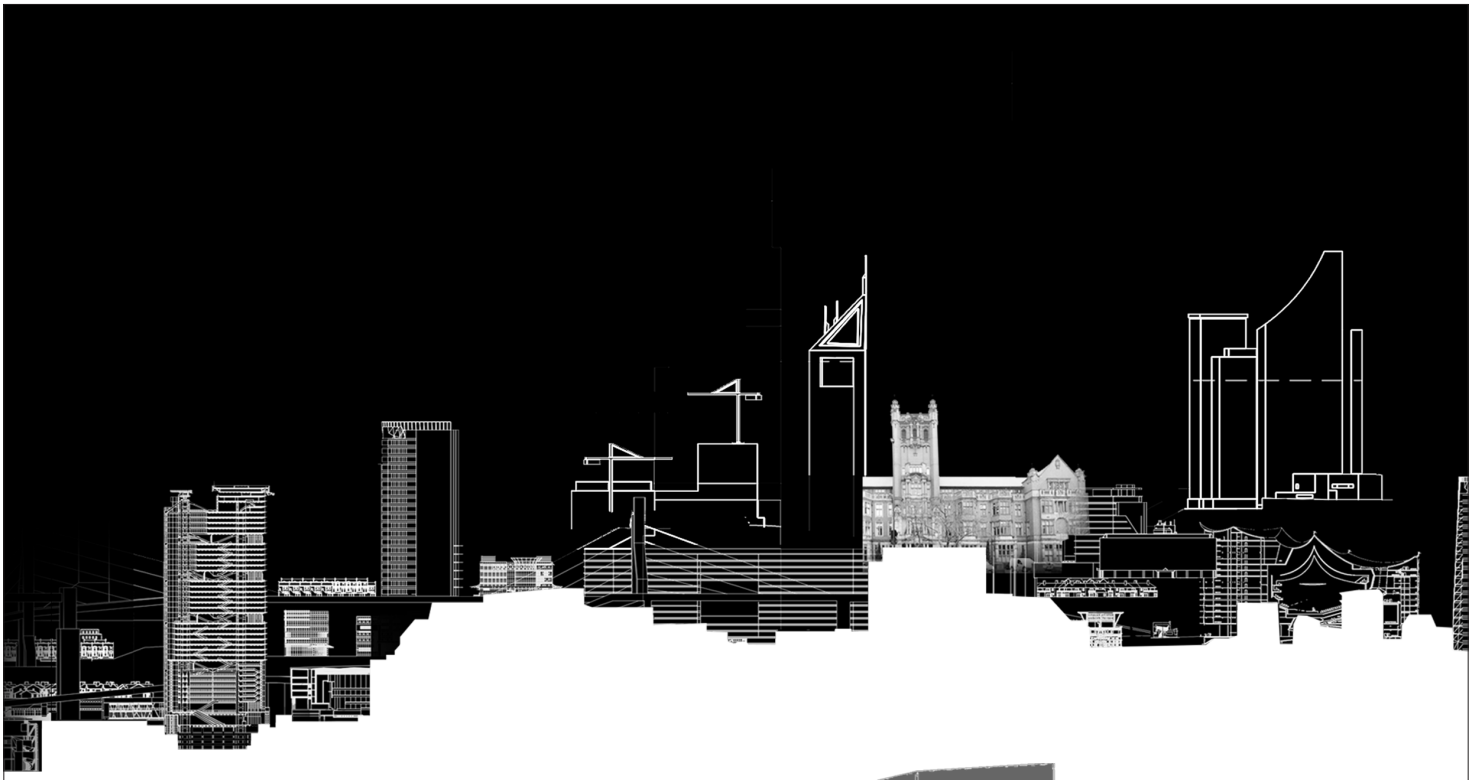
At these meetings, the architects' arguments were vacated from its full critical narrative (which are usually also not recorded) and hence can be easily cornered to the aesthetic side.

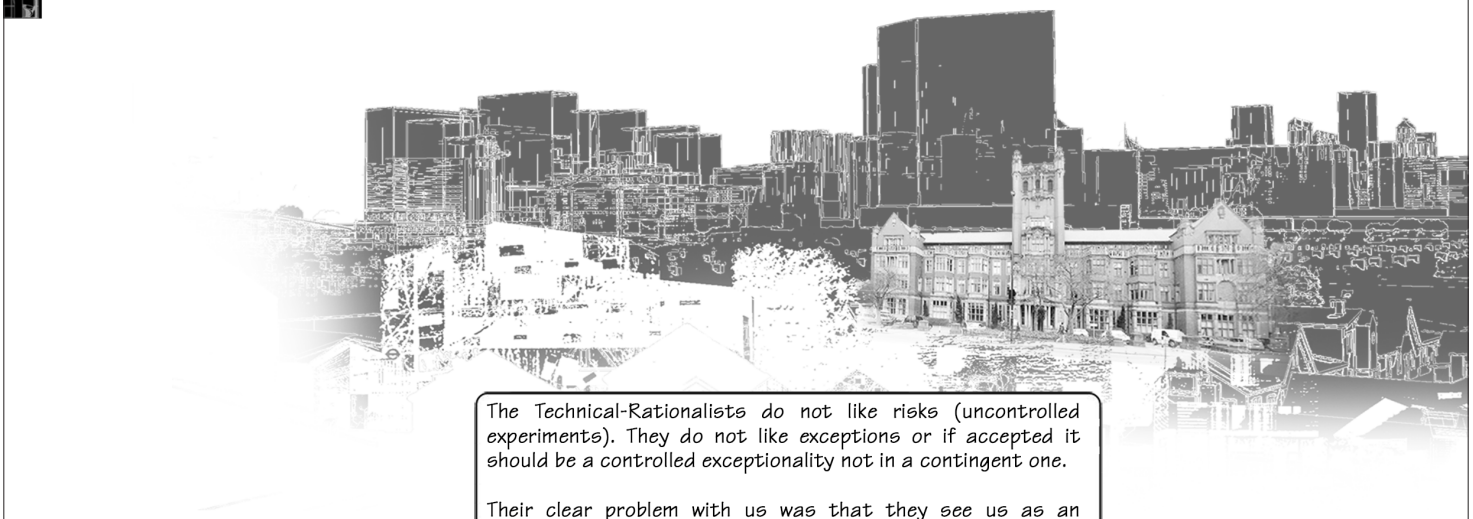
In these meetings, the most important thing for other actors of the building process were often related to management — schedules — progress meeting — health and safety — building control — etc.
However, most of these issues do not have direct relations with the spatial and visual qualities of the spaces.

Those actors share the issue of not seeing the VISUAL IMPACT of their decisions.

The architect for them is usually the person who says that these decisions will not make a good space.

Hence we seem to be the arrogant side who says that these decisions do not guarantee a good space, it may also make it worse.

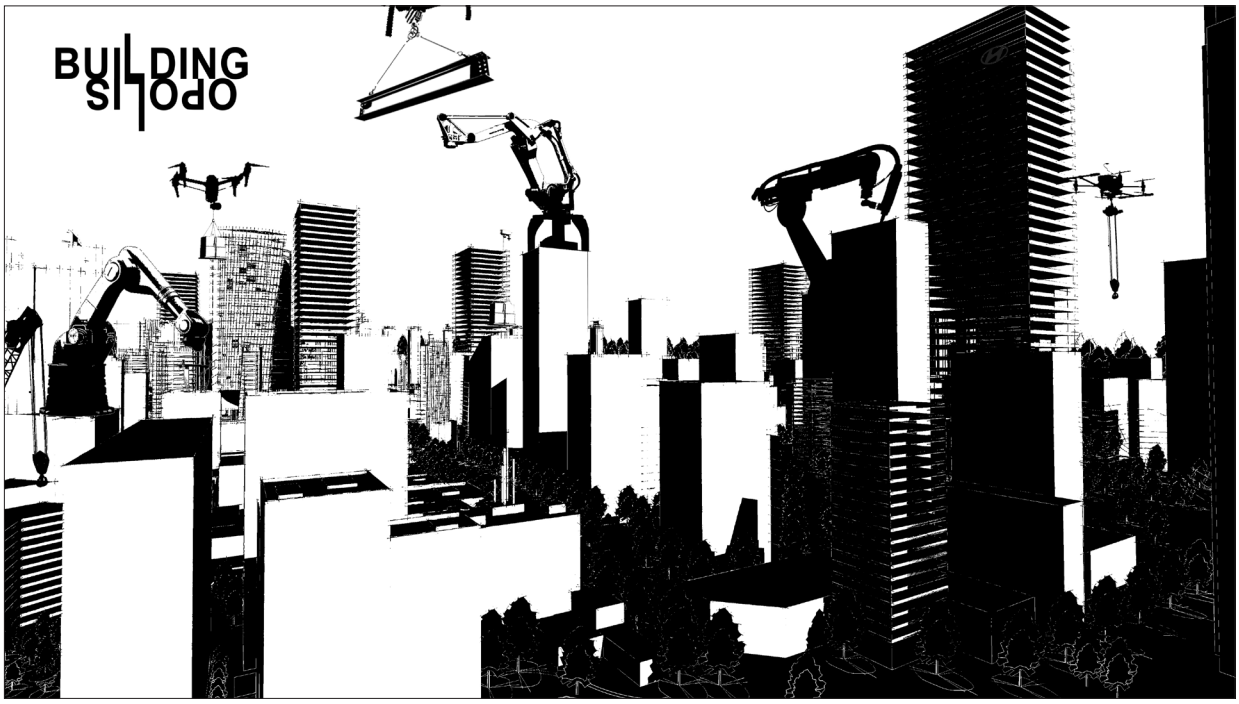




The Technical-Rationalists do not like risks (uncontrolled experiments). They do not like exceptions or if accepted it should be a controlled exceptionality not in a contingent one.

Their clear problem with us was that they see us as an obstacle against faster decisions and efficient project completion in time.
Hence, many visual decisions ended based on specification-based criteria.

In these meetings DP was pushed many times to take decisions based on a verbal discussion of a matter based on the quantitative data available and the technical and financial concerns arose at the moment. This way of taking the decisions deprived the architects from using their special box of tools that often involves drawings and modelling to test the visual qualities of these decisions.



CONCLUSION

The metaphor of Practiceopolis began as a reading of the landscape of the contemporary architectural profession and as a parody of the notion of the ideal city. The graphic novel became a provocation, a tool for opening-up speculations about possible futures for architecture as a profession. As a blend of ethnographic observation with design and fiction, it represents a special creative space combining traditions of writing and storytelling with the crafting of cartoon drawings, explored through – and exploring – architectural creative processes. The novel is critical and satirical, using humor and parody to highlight the contradictions and misunderstandings that emerge when the somewhat incompatible worldviews of diverse actors involved in building production collide. It reflects on certain priorities of architectural discourse, and the legacies of architectural training within the complex conditions of the globalized building industry. The genre of the graphic novel permits values to be caricatured in a more extreme way and allows the claiming of a temporary authority to interrogate arguments from different intellectual positions. It communicates its argument through the accessible format of cartoons to provoke important questions about everyday and mundane routines of the architectural profession, reflecting on the largely tacit assumptions that inform contemporary building production.

Fig. 12 The novel pessimistically ends with a near future speculation, extrapolating from present contemporary conditions conveyed in the novel. It shows the end of the architectural profession, or its change to a new profession, as a subsection of one of the technical-rational members of the industry.

NOTES

1 What is referred to here as 'technical-rational ideology' reflects the peak of applying analytic thinking, management theory, and systems thinking to building construction processes. This ideology tends to understand the construction process through notions of practicality, productivity, and timely delivery, represented often in tangible quantitative metrics of quality control. It involves following strict codes, regulations, and coordination protocols as well as satisfying the pressing economic requirements of the increasingly complex conditions of the globalized world.

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